

IN THE SPECIFICATION

Please replace paragraph [0138] on page 6, with the following paragraph (amendments shown):

[0138] After SiO<sub>2</sub> layer 204 has been formed, hydrogen is ion-implanted into surface 208 of silicon substrate 200 through SiO<sub>2</sub> layer 204 . The hydrogen ion-implantation 206 is made at a desired depth into silicon substrate 200. The depth for hydrogen implantation 206 is the depth at which silicon substrate 200 separates when subjected to heat treatment. Thus, as described in more detail below, the piece of the separated silicon substrate 200 that remains with SiO<sub>2</sub> layer 204, shall become an SOI active layer 304 302 (FIG. 3) in the resulting SOI structure. Accordingly, the depth of ion implantation 206, which is a function of the acceleration energy of the implanted ions, can be controlled to ensure that the SOI active layer has a desired thickness. In one embodiment, silicon substrate 200 is implanted at about 30-200 KeV with doses of about  $1 \times 10^{16}$  H<sup>+</sup> cm<sup>-2</sup> to about  $3 \times 10^{17}$  H<sup>+</sup> cm<sup>-2</sup>.